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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,464	12/12/2003	Akira Hattori	118042	8812

25944 7590 04/05/2006

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EXAMINER

PIPALA, EDWARD J

ART UNIT PAPER NUMBER

3663

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,464

Applicant(s)

HATTORI ET AL.

Examiner

Edward Pipala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/12/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to Applicant's election received on December 30th of 2005.

Election/Restrictions

2. Applicant's election with traverse of claims 1-13 and 18 in the reply filed on 12/30/05 is acknowledged.

The traversal is on the ground(s) that "the subject matter of all species is sufficiently related that a thorough search for the subject matter of one species would encompass a search for the subject matter of the remaining species". This is not found persuasive because, for instance, one looking for a "curve's radius estimation device" would not necessarily be looking for a preceding vehicle existence determination apparatus.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-13 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 7, lines 10 and 11, in the phrase “a final acquisition part for acquiring a final value of the estimate of the curve’s radius **using selectively or collectively** those estimated first and second estimates”, Applicant’s use of “selectively or collectively” is deemed to be indefinite in that 1) it seems on its face that one would not be able to tell the metes and bounds of the claimed invention given that one or the other (or both) of those options are available, and 2) Applicant doesn’t particularly point out and distinctly claim under what conditions one would use the estimates “collectively” or “selectively”.

Dependent claims 8-13 and 18 are included in this rejection because they depend on a rejected base claim.

In claim 18, line 7, the phrase “should make track” and its context is unclear.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-13 and 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese patent application publication 2001-328451, supplied by Applicant.

With respect to independent claim 1 which recites a curve radius estimation device in which vehicle speed, yaw rate and steering angle are used to estimate the

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radius of a road on which the vehicle shall run, please see the abstract as found on the front of 2001-328451 ('451).

With respect to claims 2-6, please see paragraphs 0023 through 0029 of the translation of '451, in which it is disclosed that the combination of vehicle speed, steering angle and yaw rate is used in determining or estimating the curvature of the road onto which the vehicle shall travel.

With respect to claims 7-13, in addition to the above noted sections 0023 through 0029, please also see sections in particular section 0050 which partially reads "the first curve radius R1 is computed based on the yaw rate omega obtained from the steering angle theta acquired from the steering angle sensor 24, or the yaw rate sensor 26 as well as section 0061 which discloses taking the inverse number of an average.

With respect to claim 18, dependent on claim 1, please note that '451 discloses detecting the presence of a preceding vehicle, where sections 0037 through 0040 and 0049+ (along with figures 4 and 5), show the determination of the distance to a preceding vehicle as well as an amount by which that vehicle may be out of lane.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Pipala whose telephone number is 571-272-1360. The examiner can normally be reached on M-F 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ejp


JACK KEITH
SUPERVISORY PATENT EXAMINER